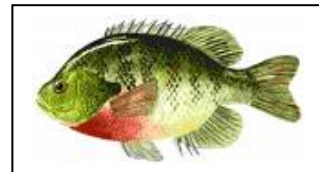


## ***POLY-UNSATURATED OMEGA 6 & OMEGA 3 FATTY ACIDS***

- These fats are called essential fatty acids because we must have a daily intake and they are vital for healthy function.
- The types and amounts of fats we eat can actually shift the state of our cells so that they are either “pro-disease” or “pro-health”. They do so based on powerful hormone substances they produce called prostaglandins.
- Omega 6’s and 3’s work like a seesaw in our body increasing and decreasing based on the intake of each other. For instance, if there are a large portion of 6’s in our diet, the 3’s diminish. They compete over the same enzymes.
- When Omega 6’s outnumber Omega 3’s they dominate and they take over the cells, like bullies.
- Western diets contain an overabundance of polyunsaturated Omega 6 fatty acids. This group includes vegetable oils like: corn oil, safflower oil, sunflower oil, cotton seed oil, and soybean oil. These oils contain linoleic acid.
- These oils are used in the majority of packaged foods and they have been added to the grains that are fed to livestock and are in beef, chicken, and pork.
- Omega 6’s metabolize into what can be a detrimental substance when it is out of balance called arachidonic acid. This substance is also derived directly from animal products.
- The problem with arachidonic acid is that it metabolizes into a pro-inflammatory substance called prostaglandin E2. Inflammation is currently a hot topic and it has been found to be directly and undeniably related to many degenerative conditions.
- Arachidonic Acid (AA) is known to turn on cancer genes and promote more heart attacks. Death from heart disease is directly linear to the amount of Omega 6’s in the diet.
- AA is the substance whose production is curtailed with the Cox2 inhibitor drugs, like Celebrex and Vioxx, which yield pain relief, but not without many harmful side effects.
- Disease promotion by Omega 6’s includes:
  - Promotes inflammation
  - Promotes production of stress hormones
  - Promotes cancer
  - Promotes mood disorders
  - Promotes GREATER FAT STORAGE
  - Promotes poor recovery by sick and surgical patients
  - Promotes increased vision problems associated with aging ie: macular degeneration
  - Promotes degenerative joint disease and disc disease (herniated and bulging discs)
  - Promotes blood clotting
  - Promotes immune system dysfunction
  - Promotes Alzheimer’s disease
  - Promotes free radical production
- The typical American diet contains an average of about 13g of Omega 6’s per day. One granola bar or 1 TBS of mayonnaise contains approximately 4 grams of Omega 6’s.

- **THE GOOD NEWS:** This pro-inflammatory enemy to our health can be **NATURALLY** reduced by eating less of Omega 6's and increasing our intake of another kind of polyunsaturated fatty acids called Omega 3's.
- Sources of Omega 3 fatty acids include flax, hemp and walnuts. All these contain linolenic acid.
- Additional Omega 3's that are highly beneficial to the body are DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid) these substances are both found in cold water fish.
- Linolenic Acid is poorly converted into DHA & EPA by the body. This means that taking flax as a dietary source of Omega 3's alone is not enough. Furthermore, men should not supplement with more than 300mg of flax oil per day due to some indication that an increased risk of prostate cancer is associated with higher levels of alpha linolenic acid (flax).
- For these reasons it is more prudent to use ground flax seeds with lignans as well as take fish oil.
- Diets Rich in Omega 3's Protect Our Health by:
  - Making compounds that fight inflammation & aid in weight reduction
  - Treating depression including post partum
  - Building better brains and significantly helping ADD & ADHD
  - Making fluid cell membranes
  - Preventing blood clots.
  - Reducing stress chemicals
  - Aiding in the prevention of heart disease & cancer
  - Improving sleep
  - Helps to prevent osteoporosis
  - Helps to prevent allergies



**IMPORTANT:**

Please note that increasing Omega 3's alone is not sufficient to obtain positive results. It is also important to dramatically lower our intake of Omega 6's. Studies have shown that the ratio of 6's:3's in our diet should be 2:1 or 1:1 for the greatest benefit to be obtained. It is currently estimated that the average American has somewhere between a 10:1 ratio to a 25:1 ratio.

- The people of the Japanese Island of Okinawa once held the record for the longest life expectancy in the world. The US occupied this island after WWII until 1972. Our Western diet influenced the eating habits of Okinawans. They began to eat more meat, less fish and cooked in vegetable oils. These habits resulted in a dramatic rise in the health problems including cancer, allergic reactions, heart, and circulatory diseases. Researches determined their diets were too low in Omega 3's and too high in Omega 6's. <sup>1</sup>

- Finally, it is well known that many types of fish are currently contaminated with PCP's dioxins and methyl mercury, which create a safety issue with consumption. Be especially cautious of farmed salmon which is the kind sold in most grocery stores. In an article in the Annals of Internal Medicine, December 2002 entitled "Balancing the Risks and Benefits of Fish Consumption", it is noted that, more than 90% of the salmon consumed in the United States is farm raised.... And that fish are the main source of concentrated polychlorinated biphenyls (PCB's). The highest dietary level of PCP's are found in farmed salmon.<sup>2</sup> In addition, be aware of fish oil supplements that are not pharmaceutical grade and make sure the company has rigorous testing for contaminants. It pays to pay more for a good supplement. Individuals taking anticoagulant drugs should not exceed an Omega 3 dose of 1 gram/day. These Omegas are natural blood thinners.
- In addition please consider the following regarding our fat intake:
  - Saturated fats, which include, the fats from animal products, butter, coconut oil and palm oil are solid at room temperature. They should be limited in our diets.
  - Monounsaturated fats are another category of fats. Olive oil is the most common monounsaturated fatty acid. Olive oil contains oleic acid which is good for our hearts. Other sources of oleic acid include peanut oil, sesame oil and avocados. These oils should be moderately consumed in our diet.
  - Remember to buy organic unrefined cold pressed olive oil and do not cook with this oil. Add it to the dish once the food is cooked.

Reference:

1. Tribble, M.S., RD, Evelyn, The Ultimate Omega-3 Diet. New York: McGraw Hill. 2007.36
2. Fisher Wilson, Jennifer. "Balancing the Risks and Benefits of Fish Consumption." Annals of Internal Medicine os 141 (2004):977-980

